

## REMARKS/ARGUMENTS

Upon entry of this amendment, claims 2-18 and 21 will be amended, whereby claims 1-22 will remain pending. Claims 1 and 21 are independent claims.

The amendments to the claims are supported by Applicants' originally filed disclosure, and therefore should not be considered to constitute new matter. For example, attention is directed to originally presented claims 1, 4 and 5, and page 7, line 21 for the m being an integer of 1 to 100, and page 9, beginning at line 20 for support for when Z is a para- or meta-phenylene group, n is 1, and PPE's having both *p*-ethenylbenzyl and *m*-ethenylbenzyl groups.

Moreover, the specification and claims have been corrected to correct typographical errors. For example, support for the amended to page 39, line 7 to change EXAMPLEs 1-4 to Examples 1-9 appears at page 27 and the Tables which describe Examples 1-9.

In Table 2 the correction of Example 7 of PPE-6 for Mass part of 70 and Mn of 4200 is from the discussion of Examples 1 and 7 and PPE-6 on pages 34-40 and the depiction of the Examples in Table 1 and 2.

Still further, claims have been amended to depend upon the examined elected claims.

Reconsideration and allowance of the application are respectfully requested.

### Discussion of Telephone Interview

Applicants express appreciation for the courtesies extended by the Examiner during a June 7, 2006 telephone interview with Applicants' representative Arnold Turk.

During the interview, Applicants' representative discussed amendments to the specification and claims as made in the present amendment. Support for the change to Table 2 and the Z group in claim 21 was also discussed. Similarly, arguments as presented herein, especially the deficiencies of Yeager et al., and advantages of the present invention were noted. The Examiner indicated that she would review the amendments and Applicants' arguments in Applicants' written response.

### **Consideration Of Information Disclosure Statements**

Applicants express appreciation for the inclusion with the Office Action of an initialed copy of the Form PTO-1449, whereby the Examiner's consideration of the Information Disclosure Statement filed February 23, 2004 is of record.

Applicants are submitting on even date herewith a Supplemental Information Disclosure Statement. The Examiner is respectfully requested to forward an initialed copy of the Form PTO-1449 submitted with the Supplemental Information Disclosure Statement with the next communication from the Patent and Trademark Office in order that the Examiner's consideration of the Supplemental Information Disclosure Statement is of record.

### **Claim Of Priority**

Applicants request that the Examiner acknowledge Applicants' claim of foreign priority as well as receipt of the certified copies of Japanese Application Nos. 2003-019475 and 2003-136496 concurrently filed with the application.

### Restriction Requirement

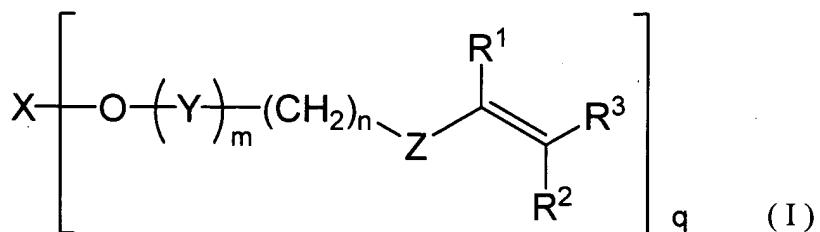
Applicants' election of Group III, claims 21 and 22 with traverse, has been confirmed with claims 1-20 being held to be withdrawn from consideration there being no allowable generic or linking claim. The requirement has been made Final.

In response, Applicants are permitting non-elected claims 1, 19 and 20 to remain pending subject to possible rejoinder, and have amended other non-elected claims to be dependent upon the rejected claims.

### Art Based Rejection

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchida et al. (hereinafter "Tsuchida"), U.S. Patent No. 6,835,241, in view of Yeager et al. (hereinafter "Yeager"), U.S. Patent No. 6,352,782.

In response, Applicants note that independent claim 21 is directed to a laminated sheet prepared by piling a prepreg and copper foil(s) one over the other under heat-pressing, wherein the prepreg is prepared by impregnating a poly(phenylene ether) resin composition into a substrate and semi-curing a resulting impregnated substrate, wherein the poly(phenylene ether) resin composition comprises a poly(phenylene ether) and a crosslinking curing agent, wherein the polyphenylene ether is represented by the following formula (I), and the number averaged molecular weight thereof is in a range of 1,000 to 7,000



wherein, X is an aryl group; (Y)<sub>m</sub> is a polyphenylene ether moiety; m is an integer of 1 to 100; Z is a para- or meta-phenylene group, an oxygen atom or a sulfur atom; and when Z is a oxygen atom or a sulfur atom, n is an integer of 1 to 6; when Z is a para- or meta-phenylene group, n is 1; R<sup>1</sup> to R<sup>3</sup> each independently is a hydrogen atom, an alkyl group, an alkenyl group or alkynyl group; and q is an integer of 1 to 4.

According to the present invention, it was found that the PPE (polyphenylene ether) of which a terminal hydroxyl group is modified with a specific group as defined in Claim 21 can raise efficiency of the reaction between PPE and a crosslinking curing agent, and that even when a relatively low molecular weight PPE is used for the purpose of increasing the fluidity in a molten state, it is possible to prepare a PPE resin composition which is excellent in dielectric characteristics and has a higher glass transition temperature, without the sacrifice of PPE's inherent characteristics. Accordingly, using the PPE resin composition of the present invention, a prepreg and laminated sheet having an excellent quality can be produced. See for, example page 5, lines 12-27 of Applicants' specification.

The rejection acknowledges that Tsuchida fails to disclose Applicants' claimed polyphenylene ether composition, but contends that Yeager discloses such a composition. Moreover, the rejection contends that one having ordinary skill in the art would have found it obvious to combine the disclosures of Tsuchida and Yeager. However, whether or not it would have been obvious to combine the disclosures of Tsuchida and Yeager, the presently claimed subject matter would not be present.

In particular, it is noted that Yeager does not disclose the PPE recited in Applicants' claim 21. The terminal groups of the PPE disclosed in Yeager are different from those recited in claim 21. For example, upon review of Yeager, it is seen that Yeager discloses PPE having a terminal group consisting of one selected from the group of carbonyl(C=O), thioketone (C=S) and methylene (CH<sub>2</sub>) group as "Z". Such groups are different from the groups recited in Applicants' claim 21.

Yeager also discloses other capping agents for substituting a terminal group of the PPE in the specification (column 7, line 65 to column 8, line 16). However, none of the terminal groups is same as the present invention. Further, those listed other capping agents, except for a capping agent providing carbonyl group(C=O) as "Z", are neither exemplified in the EXAMPLE of Yeager nor particularly mentioned for their effects.

In contrast, the present invention is directed to the PPE having specific terminal groups, by which it is possible to prepare a PPE resin composition which is excellent in dielectric characteristics and has a higher glass transition temperature, without sacrificing PPE's inherent characteristics even when a relatively low molecular weight PPE is used for the purpose of increasing the fluidity in a molten state.

Still further the dependent claims further patentably define the subject matter of claim 21, and are allowable for the reasons that claim 21 is allowable as well as for the additional features recited in the dependent claims.

### CONCLUSION

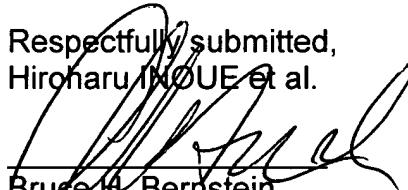
In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections of record, and allow each of the pending claims.

Applicants therefore respectfully request that an early indication of allowance of the application be indicated by the mailing of the Notices of Allowance and Allowability.

Should the Examiner have any questions regarding this application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

June 8, 2005  
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